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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/808,565 | 03/25/2004 | Joji Nishimura | 119106 | 4852 |
| 25944 | 7590 | 02/22/2006 | EXAMINER | |
| OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320 | | | QI, ZHI QIANG | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2871 | |

DATE MAILED: 02/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/808,565

Applicant(s)

NISHIMURA, JOJI

Examiner

Mike Qi

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 10 is/are rejected.
- 7) ☒ Claim(s) 5-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/25/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The previous restriction has been withdrawal.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,924,876 B2 (Kubo et al).

Regarding claims 1, 2 and 3, Kubo discloses (col.49, line 42 –col.53, line 67; Fig.

37A) a liquid crystal display device comprising:

- a pair of substrates (11, 21);
- a liquid crystal layer (30) sandwiched between the pair of substrates (11,21), the liquid crystal layer including liquid crystal having negative dielectric anisotropy (see col.12, lines 32-33);
- an image display region (pixel region such as pixel element electrode 15 includes upper conductive layer 14 and lower conductive layer 12);
- dot regions arranged in the image display region; because the upper conductive layer (14) having opening and the lower conductive layer (12)

having opening; and upper conductive layer (14) is made of a transparent conductive layer, lower conductive layer (12) is made of a conductive layer having a light-reflecting property (see col.51, lines 39-48); such that the pixel region having transmissive display region (through the openings) and reflective display region, and that is the same arrangement as the Fig.3 of this application; therefore, according to the axial symmetry, the left position and the right position function as the dot region P1 and the dot region P2; and (concerning claim 1) the transmissive display regions or the reflective display regions of two adjacent dot regions provided at positions facing edges of the liquid crystal aligned obliquely in reverse directions to each other by a transverse electric field which is generated at each edge when a voltage is applied (see col.50, lines 6-22); and (concerning claim 3) the transmissive display regions or the reflective display regions of two adjacent dot regions opposed to each other at a left position and a right position with respect to a direction which the dot regions are adjacent to each other as shown in Fig,37A;

- (concerning claim 2) since the Fig.37A having same arrangement as the Fig.3 of this application, inherently, the left position of the dot region and the right position of the dot region opposed to each other so as to sandwich a region between the dot regions; as Kubo indicated (col.50, lines 6-22) the inclination of the liquid crystal molecules (30a) at the edge portion of the opening (14a) and at the edge portion of the opening (12a).

Regarding claim 4, Kubo discloses (col.2, lines 58 - 63; Fig. 37A) that the dielectric layer (13) having the function to adjust the thickness of the liquid crystal layer (30), such that the dielectric layer (13) as a liquid crystal layer thickness-adjusting layer to control the thickness of the liquid crystal layer, i.e., the reflective display region and the transmissive region having different thickness of the liquid crystal layer; and the dielectric layer (13) as a liquid crystal layer thickness-adjusting layer provided between the substrate (11) and the liquid crystal layer (30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,924,876 B2 (Kubo et al).

Regarding claim 10, Kubo teaches the invention set forth above except for that an electronic apparatus comprises the liquid crystal display device.

However, the limitation is in the preamble that are only given weight as intended use, and the liquid crystal display can be used in any electronic apparatus as Kubo indicated (col.1, lines 5-9) such liquid crystal display device having a wide viewing angle and performing a high quality display, and that would have been at least obvious.

Allowable Subject Matter

5. Claims 5-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record neither anticipated nor rendered obvious that a liquid crystal display device comprises various elements as claimed, more specifically, as the following features:

the dot region being formed in a substantially rectangular shape, and the transmissive display region arranged along the long edge of the dot region as shown in Fig.5 [claim 5].

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Qi whose telephone number is (571) 272-2299.

The examiner can normally be reached on M-T 8:00 am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mike Qi
Patent Examiner
February 10, 2006